

REVIEW OF SOME LITTLE-KNOWN SPECIES OF SYLLIDS
(ANNELIDA: POLYCHAETA) DESCRIBED FROM THE
GULF OF MEXICO AND CARIBBEAN BY
HERMANN AUGENER IN 1924

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Abstract.—The types of 6 little-known syllid species described by Augener in 1924 from the Dry Tortugas, Florida, and from St. Thomas and St. Croix in the West Indies, were reexamined. *Haplosyllides floridana* is a sexual form herein assigned to *Haplosyllis floridana* n. comb.; *Haplosyllis aberrans* (Fauvel) is synonymized with it. *Eusyllis antillensis* and *Syllis* (*Typosyllis*) *tigrinoides* are synonyms; the latter name is retained. *Syllis* (*Typosyllis*) *tortugaensis* is referred to *S. (T.) armillaris* (Müller). *Syllis* (*Typosyllis*) *fuscoturata* has previously been synonymized with *Branchiosyllis exilis* (Gravier); that synonymy is supported here. *Syllis* (*Typosyllis*) *corallicoloides* remains a valid species.

In 1924, H. Augener erected six new species of syllids, but provided only short, vague descriptions without illustrations. Four of these species were mentioned in subsequent works by the same author, but again no figures were included. Later authors, who reported some of these species, did little to augment the original descriptions, although Monroe (1933a, b) provided several figures for *Syllis fuscoturata* and *S. tigrinoides*, and Westheide (1974) furnished detailed illustrations of *Branchiosyllis exilis*, to which he referred Augener's *S. fuscoturata*. The remaining four species have never been illustrated.

In preparation for a comprehensive study of Gulf of Mexico syllids, I reexamined Augener's type specimens to compare them with available syllids from the Gulf. The need for complete descriptions and illustrations of Augener's species, along with a discussion of their taxonomic status, became evident and resulted in this paper.

Branchiosyllis Ehlers, 1887
Branchiosyllis exilis (Gravier, 1900)

Syllis (*Typosyllis*) *exilis* Gravier, 1900:160, pl. 9, fig. 9, text-fig. 28–30.

Syllis (*Typosyllis*) *fuscoturata* Augener, 1924:43; 1927b:52.—Hartman, 1959:230.—Perkins and Savage, 1975:31.

Syllis fuscoturata.—Monro, 1933a:32, fig. 14; 1933b:250, fig. 4a–c.—Hartman, 1939:10.

Syllis exilis.—Monro, 1937:82, 1939:386.

Branchiosyllis exilis.—Westheide, 1974:60, fig. 26 (synonymy).

Typosyllis fuscoturata.—Fauchald, 1977:21.

Material examined.—FLORIDA: Tortugas, S.W. Channel, 12 Feb. 1907, 2 syntypes of *Syllis fuscoturata* (ZMHUB 6598); Station 321, zone 5, traverse 10, J. S. Colman and G. Tandy, colls., 26 July 1931, C. C. A. Monro, ID, as *Syllis fuscoturata* (BMNH ZK.1932.12.22.137, 1 specimen).

Remarks.—Monro (1937:82) first considered *Syllis fuscotaturata* a synonym of *S. exilis*. Later, Westheide (1974:60) transferred the latter to the genus *Branchiiosyllis*, and included *S. fuscotaturata* in synonymy on the basis of material from Curaçao and the West Indies, identified by Augener and deposited in the Zoologisches Museum der Universität Hamburg. The syntypes and Monro's specimen of *S. fuscotaturata* examined here agree well in all characteristics with the descriptions of *B. exilis* published by Westheide (1974) and Gravier (1900).

Distribution.—Circumtropical.

Haplosyllis Langerhans, 1879

Haplosyllis floridana (Augener, 1924), new combination

Fig. 1

Haplosyllides floridana Augener, 1924:44.—Hartman, 1959:208.

Syllis (*Haplosyllis*) *aberrans* Fauvel, 1939:290, fig. 3.

Haplosyllis aberrans.—Hartman, 1954:622, 626, 629; 1959:208.—Hartmann-Schröder, 1978:49, figs. 1–7.—Rullier and Amoureux, 1979:160.

Material examined.—FLORIDA: Tortugas, Hartmeyer, coll., 8 July 1907, holotype of *Haplosyllides floridana* (ZMHUB 6608).

Description.—Complete holotype yellowish-brown in color, with 15 setigers, length 1.8 mm, width at midbody 0.4 mm including parapodia. Prostomium fused with first segment, anteriorly rounded, with 3 short digitiform antennae (Fig. 1a). Eyes, palps, and tentacular cirri lacking. First segment setigerous. Parapodia biramous, with globular notopodia and slender, prolonged neuropodia. Dorsal cirri filiform, about 4 times length of parapodia on setiger 1, thereafter alternating about twice and 1.5 times length of parapodia. Ventral cirri clavate, inserted midway on ventral surfaces of parapodia and extending about halfway between tips of notopodia and neuropodia. Notopodia with solitary, slender acicula slightly bent at tips, and numerous long, capillary natatory setae starting on setiger 2. Neuropodia with solitary, stout acicula narrowing at tips (Fig. 1b), and 2–3 long, stout setae with somewhat constricted trifid tips (Fig. 1c). Dorsalmost neurosetae slightly larger than others. Pygidium rounded, narrower than posterior segments, lacking cirri. Pharynx and proventricle absent.

Remarks.—The holotype is clearly an epitoke based on the following evidence: reduction of prostomial appendages, immense pair of eyes (reported by Augener, now completely faded), absence of peristomium and anterior digestive tract, and presence of notopodia and natatory setae. According to Augener, the holotype was possibly collected in the plankton.

Characteristics of the setae and dorsal cirri of *Haplosyllis floridana* agree well with *H. aberrans* (Fauvel). The latter was originally described from Indochina, associated with sponges and *H. spongicola*, by Fauvel (1939). *Haplosyllis aberrans* was later reported by Hartman (1954) from the northern Marshall Islands, associated with coral. Hartmann-Schröder (1978) reported it with ophiuroids from Puerto Rico, and suggested that its occurrence may be circumtropical. Rullier and Amoureux (1979) recorded *H. aberrans* from Brazil on substrates of coral and calcareous algae. Epitokes have not previously been noted.

Distribution.—Indochina; Enewetak Atoll, Marshall Islands; Puerto Rico; Dry Tortugas, Florida; Brazil.

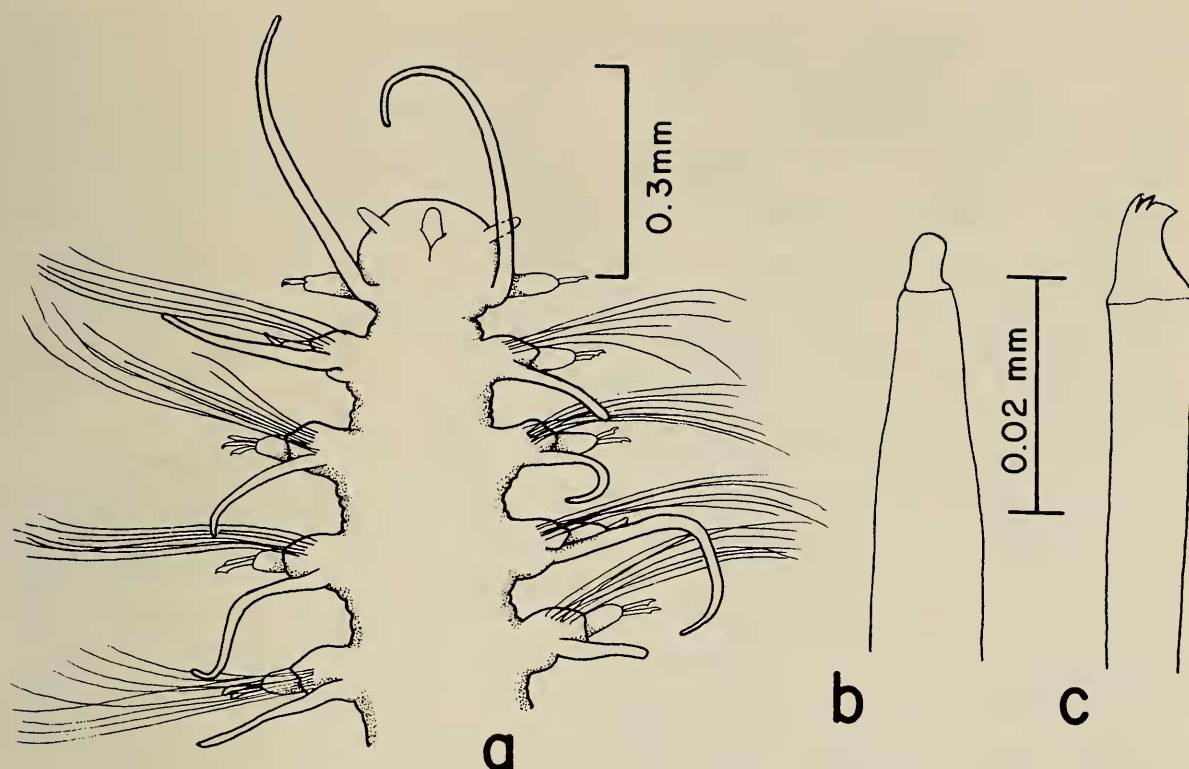


Fig. 1. *Haplosyllis floridana*, epitoke: a, Anterior end, dorsal view; b, Aciculum; c, Neuroseta. From holotype of *Haplosyllides floridana* (ZMHUB 6608).

Syllis Savigny, 1818

Subgenus *Typosyllis* Langerhans, 1879

Syllis (*Typosyllis*) *armillaris*

(Müller, 1771, in Müller, 1776)

Fig. 2

Syllis (*Typosyllis*) *tortugaensis* Augener, 1924:43; 1927b:51.—Hartman, 1959: 231.—Perkins and Savage, 1975:31.

Typosyllis tortugaensis.—Hartman, 1959:235.

Material examined.—FLORIDA: Tortugas, Bird Key, syntype of *S. tortugaensis* (ZMHUB 6596).

Description.—Complete syntype grayish-brown in color, with 198 setigers, length 30 mm, width in proventricular region 0.9 mm including parapodia. Body arched dorsally, flattened ventrally. Prostomium anteriorly rounded, posteriorly nearly linear (Fig. 2a). Eyes 4, faded, anterior pair larger, lentigerous. Median antenna inserted between anterior eyes, with about 17 articles. Lateral antennae inserted near anterior margin of prostomium, two-thirds length of median antenna, with 13–18 articles. Palps bluntly rounded anteriorly, apparently not fused basally, shorter than lateral antennae. Nuchal organs not observed. Peristomium slightly shorter than following segments. Left dorsal tentacular cirrus missing, right one subequal in length to median antenna, with about 17 articles. Ventral tentacular cirri subequal in length to lateral antennae, with about 14 articles. Segments about 4 times broader than long anteriorly. Parapodia distally rounded (Fig. 2b), occasionally with small pre- and postsetal lobes. Dorsal cirri fairly stout and distinctly articulated throughout, cirriform anteriorly, becoming fusiform in mid-body region (Fig. 2b), shorter than body width except on anterior setigers, alternating

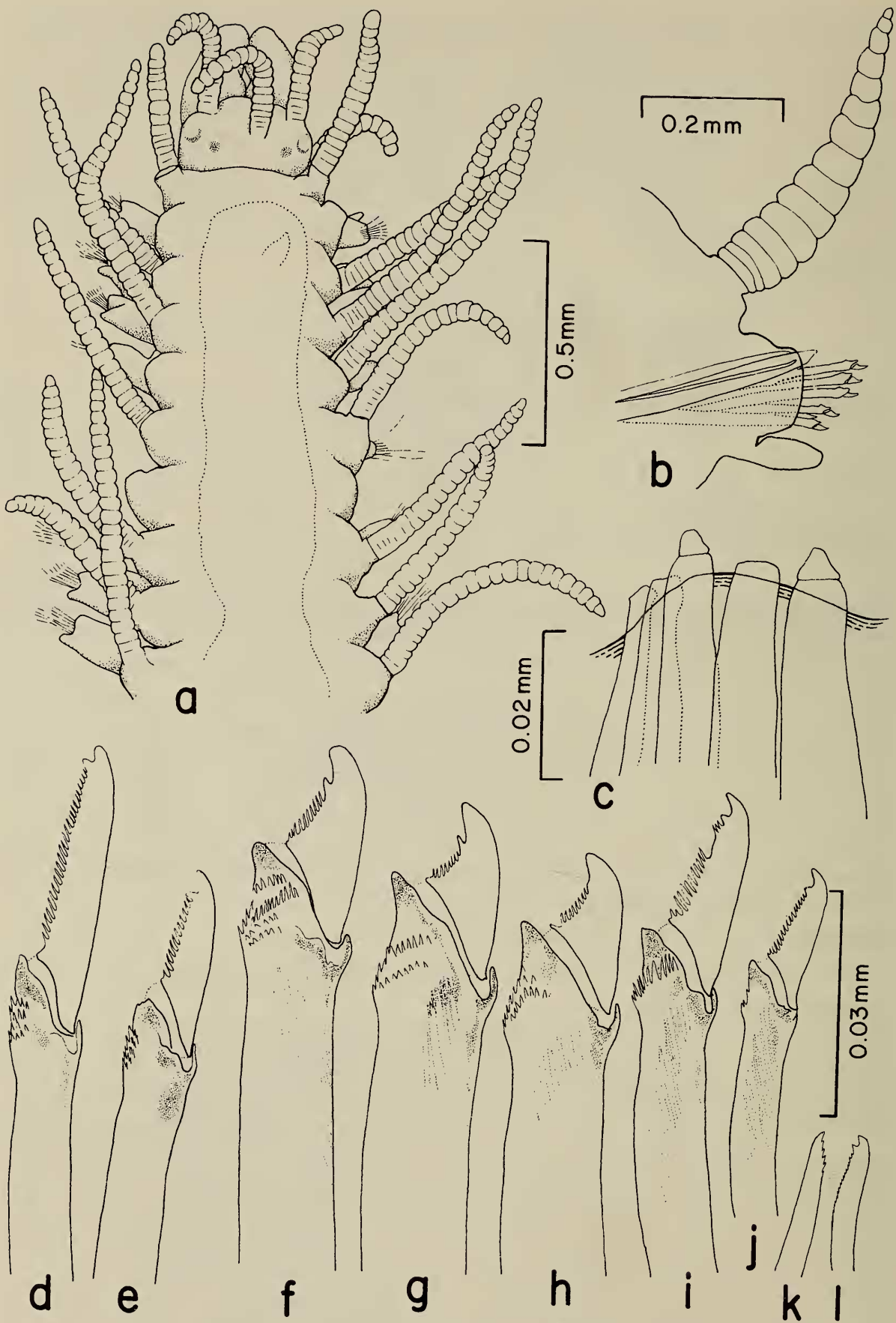


Fig. 2. *Syllis (Typosyllis) armillaris*: a, Anterior end, dorsal view; b, Parapodium from mid-body region, anterior view; c, Acicula from anterior region; d, Superior falciger from anterior region; e, Inferior falciger from anterior region; f, Superior falciger from mid-body region; g, h, Inferior falcigers from mid-body region; i, j, Inferior falcigers from posterior region; k, Superior simple seta; l, Inferior simple seta. Scale same for d-l. From syntype of *Syllis tortugaensis* (ZMHUB 6596).

slightly in length, longer ones with about 15–30 articles, shorter ones with about 10–20 articles. Ventral cirri digitiform, generally not extending beyond tips of parapodia. Acicula sometimes slightly emergent, numbering 5 in anterior parapodia (Fig. 2c), 3 in middle parapodia, 2 stout and 1 very slender (Fig. 2b). Setae mostly composite falcigers with serrate shaft-heads. Setae of anterior region bidentate, with numerous short serrations below subdistal tooth, blades graded in length from superior (Fig. 2d) to inferior (Fig. 2e), blade length ratio* 1.5:1. Setae of mid-body region including superior bidentate falcigers with small subdistal tooth (Fig. 2f), and inferior subbidentate to unidentate falcigers (Fig. 2g, h), blade length ratio 1.2:1. Setae of posterior region again bidentate, some similar to anterior setae (Fig. 2i), some more slender (Fig. 2j), blade length ratio 1.4:1; each posterior parapodium with single, short, slender, minutely serrate superior and inferior simple setae (Fig. 2k, l). Paired anal cirri missing; short, slender, smooth, midventral anal cirrus present. Pharynx occupying setigers 1–11, middorsal tooth subterminal. Proventricle occupying setigers 12–24, with 44 rows of muscle cells, 4 times longer than wide and 1.2 times longer than pharynx.

Remarks.—*Syllis tortugaensis* is herein referred to *S. armillaris*, based on the presence of fusiform dorsal cirri, and falcigers which are bidentate anteriorly and posteriorly, and unidentate or subbidentate in the mid-body region. A specimen (BMNH ZK.1932.12.22.124) from the Dry Tortugas identified by Monro (1933b: 251, fig. 5) as *S. tortugaensis* does not belong to *S. armillaris*, but may represent an undescribed species.

Distribution.—Cosmopolitan.

Syllis (Typosyllis) corallicoloides Augener, 1924

Fig. 3

Syllis (Typosyllis) corallicoloides Augener, 1924:42; 1927a:134; 1927b:51; 1933: 227; 1936:341.—Hartman, 1959:230.—Perkins and Savage, 1975:31.

Typosyllis corallicoloides (sic).—Hartman, 1951:41.—Marsden, 1960:995.

Typosyllis corallicoloides.—Hartman, 1959:234.

Material examined.—WEST INDIES: St. Croix, Grube, coll., 2 syntypes (ZMHUB 3020).

Description.—Body yellowish-brown in color, nearly complete larger syntype with 110 setigers, incomplete smaller syntype somewhat desiccated, with 76 setigers, lengths 17.7 and 15.2 mm, respectively, widths in proventricular region 1.25 and 0.55 mm including parapodia. Body flattened ventrally, dorsally arched anteriorly becoming more flattened in mid-body region. Prostomium suboval to rounded. Eyes 4, small, very faded, in trapezoidal arrangement with anterior pair farther apart (Fig. 3a), not visible on larger syntype. Antennae, tentacular and dorsal cirri much longer than body width, with flattened, twisted, indistinct articles appearing smooth under low magnification on larger syntype, but more distinct on smaller syntype; all article counts given for smaller syntype only. Median antenna missing, ceratophore inserted between eyes. Lateral antennae with about 15 articles. Palps elongate, blunt anteriorly, about half length of lateral

* Ratio of lengths of longest superior to shortest inferior setal blades.

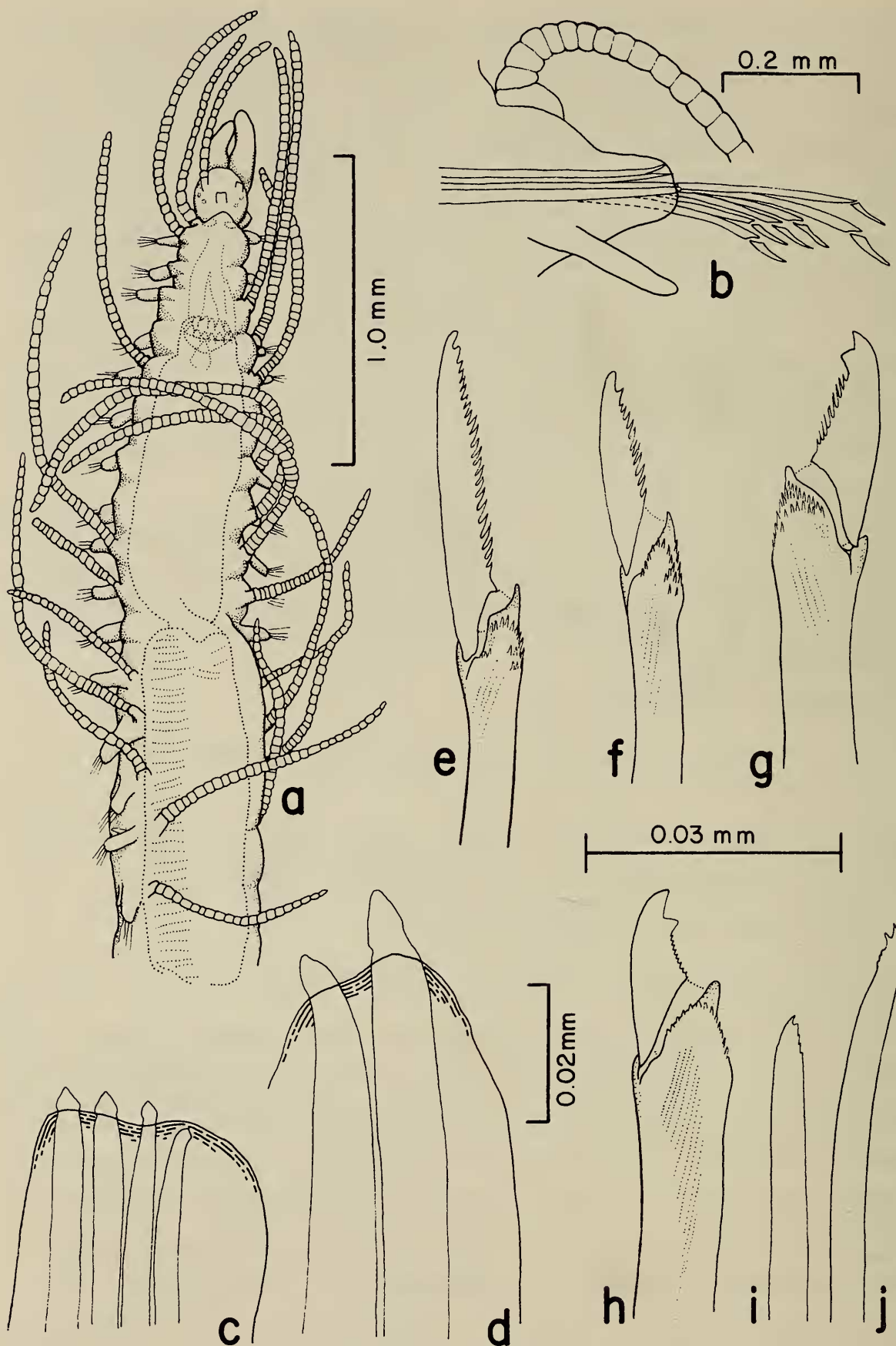


Fig. 3. *Syllis (Typosyllis) corallicoloides*, smaller syntype (ZMHUB 3020): a, Anterior end, dorsal view; b, Parapodium from anterior region, posterior view; c, Acicula from anterior region; d, Acicula from mid-body region; e, Superior falciger from anterior region; f, Inferior falciger from anterior region; g, Superior falciger from mid-body region; h, Inferior falciger from mid-body region; i, Superior simple seta; j, Inferior simple seta. Scale same for e-j.

antennae. Nuchal organs small, paired lobes between prostomium and peristomium. Peristomium shorter than following segments, forming small flap over posterior part of prostomium. Dorsal tentacular cirri with 24 articles, ventral with about 17 articles. Parapodia with short pre- and postsetal lobes on larger syntype, distally rounded on smaller syntype (Fig. 3b). Dorsal cirri elongate, cirriform anteriorly, becoming more filiform in middle and posterior regions, alternating somewhat in length, longer cirri with 30–35 articles, shorter cirri with 18–24 articles. Ventral cirri digitiform, extending beyond tips of parapodia anteriorly. Acicula with tips emergent, numbering 4 in anterior parapodia (Fig. 3c), 2 in mid-body region (Fig. 3d). Setae mostly composite, bidentate falcigers (Fig. 3e–h), with lightly serrate shaft-heads. Blades graded in length from superior to inferior, teeth rounded or pointed, with fine, short serrations below subdistal tooth. Setae fairly slender anteriorly (Fig. 3e, f), becoming somewhat broader in mid-body region (Fig. 3g, h). Posterior falcigers essentially similar to those of mid-body region, but with slightly shorter blades and with 1–2 more slender superior falcigers in posteriormost parapodia. Setal blade length ratios 1.5–1.9:1 in anterior body region, 1.5–1.6:1 in middle and posterior regions. Posterior parapodia with additional single, slender, minutely bifid superior and inferior simple setae (Fig. 3i, j). Pygidium with paired, posterolateral anal cirri having about 27 articles, midventral cirrus not observed. Pharynx occupying first 14 setigers in larger syntype and setigers 3–10 in smaller syntype, with smooth margin surrounded by 14–16 soft papillae, and with fairly large, subterminally located middorsal tooth. Proventricle disintegrated in larger syntype, occupying setigers 11–17 in smaller syntype, with about 35 rows of muscle cells, 3.1 times longer than wide and 1.1 times longer than pharynx.

Remarks.—*Syllis corallicoloides* differs from most other members of the genus, with the exception of *S. tigrinoides*, in having the margin of the pharynx surrounded by more than ten soft papillae. *Syllis corallicoloides* differs from *S. tigrinoides* in having more slender dorsal cirri anteriorly; setal shafts more slender in the mid-body region, and teeth of the setal blades more separated and less rounded; greater disparity among lengths of setal blades; fewer papillae surrounding the margin of the pharynx; and the proventricle about 3 rather than 4–5 times longer than wide. Overall similarity between the types of the two species is great; collection and study of additional specimens may indicate that they represent the same species.

Distribution.—West Indies, including St. Croix, Jamaica, Curaçao and Barbados; Veracruz, Mexico; Dry Tortugas, Florida.

Syllis (Typosyllis) tigrinoides Augener, 1924

Fig. 4

Syllis (Typosyllis) tigrinoides Augener, 1924:43; 1927b:52; 1931:286; 1933:229.—

Hartman, 1959:231.—Perkins and Savage, 1975:31 (not Monro, 1933b:247, fig. 2a–c).

Typosyllis tigrinoides.—Hartman, 1959:235.

Eusyllis antillensis Augener, 1924:44.—Hartman, 1959:204.—Perkins and Savage, 1975:30.

Material examined.—FLORIDA: Dry Tortugas, Bird Key Reef and S.W. Channel, Hartmeyer, coll., holotype of *Syllis tigrinoides* (ZMHUB 6597).—WEST

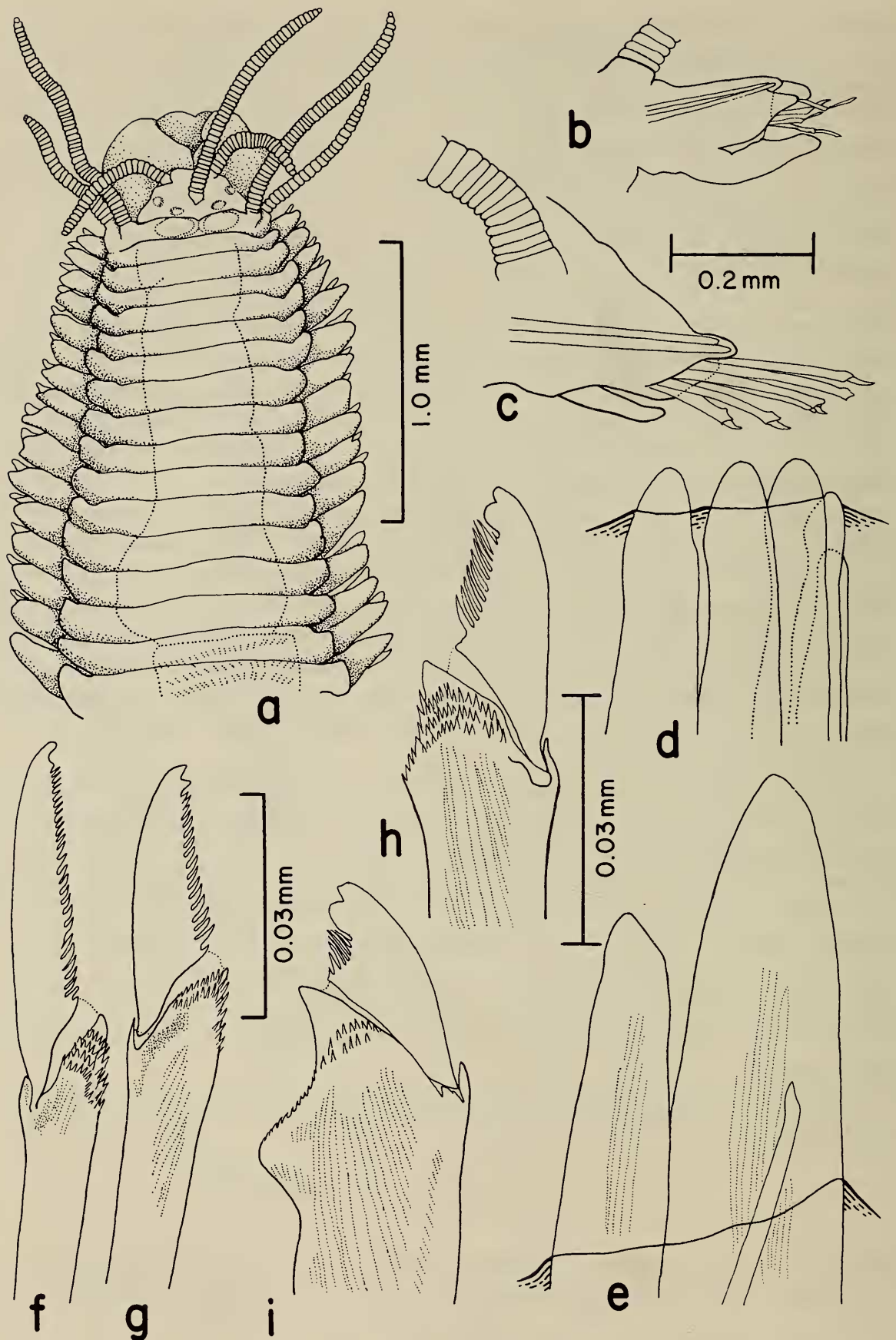


Fig. 4. *Syllis* (*Typosyllis*) *tigrinoides*: a, Anterior end, dorsal view (dorsal cirri not shown); b, Parapodium from anterior region, anterior view; c, Parapodium from mid-body region, anterodorsal view; d, Acicula from anterior region; e, Acicula from mid-body region; f, Superior falciger from anterior region; g, Inferior falciger from anterior region; h, Superior falciger from mid-body region; i, Inferior falciger from mid-body region; scale same for d, e, h, i. a, d, e, h, i from holotype of *Eusyllis antillensis* (ZMHUB 6594); b, c, f, g from holotype of *Syllis tigrinoides* (ZMHUB 6597).

INDIES: St. Thomas Sound, Kükenthal and Hartmeyer, colls., Jan. 1907, holotype of *Eusyllis antillensis* (ZMHUB 6594).

Description.—Holotype of *S. tigrinoides* with dorsum chocolate brown in color, dorsal cirri tan; holotype of *E. antillensis* yellowish-brown. Both holotypes incomplete with 104 and 98 setigers, respectively, lengths 17.1 and 15.5 mm, widths in proventricular region 1.8 and 1.35 mm including parapodia. Body ventrally flattened to concave, dorsally arched anteriorly becoming more flattened in mid-body region. Prostomium suboval to quadrangular (Fig. 4a). Eyes 4, lentigerous, in trapezoidal arrangement across posterior half of prostomium. Median antenna fairly long, on short ceratophore between eyes, with about 45 small, crowded articles. Lateral antennae half length of median antenna, with about 25 articles. Palps broad, bluntly rounded anteriorly, not fused basally. Nuchal organs paired, oval lobes covered by peristomial margin. Peristomium about same length as following segments. Dorsal tentacular cirri slightly longer than median antenna, with about 45–50 articles. Ventral tentacular cirri slightly longer than lateral antennae, with about 25–30 articles. Segments crowded, up to 8 times broader than long. Parapodia well developed, slightly larger in mid-body region than anteriorly, with short, digitiform pre- and postsetal lobes (Fig. 4b, c). Dorsal cirri long and more or less distinctly articulated throughout, mostly curled in holotype of *S. tigrinoides*, becoming more slender towards posterior region, alternating in length, longer cirri with about 60–75 articles, shorter cirri with about 30–35 articles. Ventral cirri clavate to digitiform, arising midway on and extending slightly beyond tips of parapodia anteriorly, arising basally and not extending beyond tips of parapodia towards mid-body region. Acicula emergent, numbering 5 in anterior parapodia (Fig. 4d), 2 stout and 1 minute in middle parapodia (Fig. 4e). Setae composite falcigers (Fig. 4f–i) numbering about 8–17 in anterior parapodia, about 6–11 in middle parapodia. Shaft-heads with numerous fine serrations in 2–4 transverse rows. Blades graded in length from superior to inferior, bidentate, teeth usually well-rounded, occasionally pointed, with fine serrations below subdistal tooth. Setae fairly slender anteriorly (Fig. 4f, g), inferior setae becoming much stouter in mid-body region (Fig. 4i). Setal blade length ratio 1.3–1.5:1 in anterior region, 1.2–1.3:1 in mid-body region. Superior and inferior simple setae not observed (both holotypes incomplete). Pharynx extending back into setigers 13–15, partially everted in holotype of *E. antillensis*, somewhat convoluted in holotype of *S. tigrinoides*, margin smooth, surrounded by 19–20 soft papillae, middorsal tooth subterminal. Proventricle rectangular, extending back to setigers 29–30, with 36–38 rows of muscle cells, 4–5 times longer than wide and 1.1–1.5 times longer than pharynx.

Remarks.—*Eusyllis antillensis* is herein transferred to the genus *Syllis*, since the antennae, tentacular and dorsal cirri are distinctly articulated, the palps are not fused basally, and the margin of the pharynx is smooth rather than denticulate as in *Eusyllis*. The holotype of *E. antillensis* is nearly identical in all respects to that of *S. tigrinoides*; the two are hereby synonymized, with the name *tigrinoides* to be retained, since it has page priority in the original publication and has been more frequently reported in subsequent literature. Three specimens (BMNH ZK.1932.12.22.180–181) from the Dry Tortugas identified by Monro (1933b:247, fig. 2a–c) as *S. tigrinoides* do not belong to this species, but may represent an undescribed species.

Distribution.—West Indies, including St. Thomas, Curaçao, and Jamaica; Dry Tortugas, Florida; Brazil.

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